

**DEVICE AND METHOD FOR LOW NON-LINEARITY
ANALOG-TO-DIGITAL CONVERTER**

ABSTRACT OF THE DISCLOSURE

An apparatus and method for converting an analog signal to a digital signal. The apparatus includes a plurality of capacitors. The plurality of capacitors includes at least a first capacitor, a second capacitor and a third capacitor. The first capacitor is associated with a first capacitance, a second capacitor is associated with a second capacitance, and a third capacitor is associated with a third capacitance. The first capacitance is substantially equal to the second capacitance, and the second capacitance is substantially equal to the third capacitance. Additionally, the apparatus includes a plurality of resistors. The plurality of resistors includes at least a first resistor and a second resistor. Moreover, the apparatus includes an operational amplifier.

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